



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/529,445

03/28/2005

Okuyama Ryoichi

4174-050884

8096

28289 7590 09/15/2008  
THE WEBB LAW FIRM, P.C.  
700 KOPPERS BUILDING  
436 SEVENTH AVENUE  
PITTSBURGH, PA 15219

EXAMINER

MAPLES, JOHN S

ART UNIT

PAPER NUMBER

1795

MAIL DATE

DELIVERY MODE

09/15/2008

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/529,445	<b>Applicant(s)</b> RYOICHI ET AL.	
	<b>Examiner</b> John S. Maples	<b>Art Unit</b> 1795	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 18-29 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 18-29 is/are rejected.
- 7) ☒ Claim(s) 22 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 28 March 2005 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. ____.                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date ____.  | 6) <input type="checkbox"/> Other: ____.                          |

1. The drawings are objected to under 37 CFR 1.83(a) because they fail to show the first and second electrodes and the membrane between the two electrodes as described in the specification. Particular note is made to Figures 1, 3, 7, 9 and 11 of the present application. Any structural detail that is essential for a proper understanding of the disclosed invention should be shown in the drawing. MPEP § 608.02(d). Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

2. A substitute specification excluding the claims is required pursuant to 37 CFR 1.125(a) because of the numerous grammatical errors on each page and in each

Art Unit: 1795

paragraph. Applicant should carefully review the entire specification and amend the same to conform with proper idiomatic English language and grammar.

A substitute specification must not contain new matter. The substitute specification must be submitted with markings showing all the changes relative to the immediate prior version of the specification of record. The text of any added subject matter must be shown by underlining the added text. The text of any deleted matter must be shown by strike-through except that double brackets placed before and after the deleted characters may be used to show deletion of five or fewer consecutive characters. The text of any deleted subject matter must be shown by being placed within double brackets if strike-through cannot be easily perceived. An accompanying clean version (without markings) and a statement that the substitute specification contains no new matter must also be supplied. Numbering the paragraphs of the specification of record is not considered a change that must be shown.

3. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

4. Claims 18-27 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claims contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

Applicant has used the expression “the sensor detecting the concentration of the liquid fuel by a temperature compensated electromotive force, produced by compensating an electromotive force of the monitor cell by an output signal of the temperature detector” in each of claims 18, 26 and 27. This language is incorrect because the sensor does not detect the concentration of the liquid fuel by the electromotive force. From the specification, it appears that the electromotive force is adjusted by the results of the sensor, which sensor includes a temperature detector and based on the temperature of the generator, the electromotive force is adjusted by varying the concentration of the liquid fuel.

Claims 19-25, dependent on claim 18, fall therewith.

5. Claim 22 is objected to being dependent on a cancelled claim.

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

7. Claims 18-29 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Each of claims 18-29 should be carefully and completely reviewed and amended to conform with the above statute.

In claim 18, lines 2-4, the expression “the cell....electrolyte membrane” does not find proper antecedent basis. In addition, it is unclear what relationship “the cell” has to the remainder of the fuel cell system. Clarification is required.

Art Unit: 1795

In lines 4 and 7 of claim 18, applicant has used the expression "a liquid fuel". Is this liquid fuel the same in both instances or are these different liquid fuels?

Clarification is required.

In claim 18, lines 19-22, the word --respectively-- should be inserted in line 20, after "generator" and in line 22, after "generator" to clarify the relationship of the recited elements. It is noted that applicant has used this language in claim 26.

Claims 19-25, dependent on claim 18, fall therewith.

In claim 26, lines 3-5, the expression "the cell....electrolyte membrane" does not find proper antecedent basis. In addition, it is unclear what relationship "the cell" has to the remainder of the fuel cell system. Clarification is required.

In lines 5 and 8 of claim 26, applicant has used the expression "a liquid fuel". Is this liquid fuel the same in both instances or are these different liquid fuels?

Clarification is required.

(In claim 26, a comma should be inserted in line 21, after "generator" and after "generator" and in line 23, after "generator" to clarify the relationship of the recited elements.)

In claim 27, lines 3-5, the expression "the cell....electrolyte membrane" does not find proper antecedent basis. In addition, it is unclear what relationship "the cell" has to the remainder of the fuel cell system. Clarification is required.

In lines 5 and 8 of claim 27, applicant has used the expression "a liquid fuel". Is this liquid fuel the same in both instances or are these different liquid fuels?

Clarification is required.

In claim 27, lines 20-23, the word –respectively-- should be inserted in line 21, after “generator” and in line 23, after “generator” to clarify the relationship of the recited elements. It is noted that applicant has used this language in claim 26.

In claim 28, lines 2-4, the expression “the cell....electrolyte membrane” does not find proper antecedent basis. In addition, it is unclear what relationship “the cell” has to the remainder of the fuel cell system. Clarification is required.

In lines 4 and 7 of claim 28, applicant has used the expression “a liquid fuel”. Is this liquid fuel the same in both instances or are these different liquid fuels? Clarification is required.

The expression “the sensor comprising a liquid permeable membrane for permeating the liquid fuel” found in lines 12-13 of claim 28 is indefinite and unclear. It is not understood how the membrane would permeate the liquid fuel? Clarification of this claim language is required.

8. In view of the unreadability, incompleteness and errors in the specification and claims, it was not possible for the examiner to understand the metes and bounds of the claimed subject matter and so a prior art search could not be conducted.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to John S. Maples whose telephone number is 571-272-1287. The examiner can normally be reached on Monday-Friday, 8:00-4:30.

Art Unit: 1795

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick Ryan can be reached on 571-272-1292. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.


Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/John S. Maples/

John S. Maples  
Primary Examiner  
Art Unit 1795

JSM/9-12-2008



<div>Application Number</div> <div></div>	Application/Control No.	Applicant(s)/Patent under Reexamination	
	10/529,445	RYOICHI ET AL.	
	Examiner	Art Unit	
	John S. Maples	1795	